abcam

## Product datasheet

# Recombinant Human Calpain small subunit 1 protein ab180298

1 Image

### Description

| | |
|---|---|
| **Product name** | Recombinant Human Calpain small subunit 1 protein |
| **Purity** | > 95 % SDS-PAGE.<br>ab180298 is purified using conventional chromatography techniques. |
| **Expression system** | Escherichia coli |
| **Accession** | P04632 |
| **Protein length** | Protein fragment |
| **Animal free** | No |
| **Nature** | Recombinant |
| **Species** | Human |
| **Sequence** | MGSSHHHHHH SSGLVPRGSH MGSRTHYSNI EANESEEVRQ FRRLFAQLAG DDMEVSATEL MNILNKVVTR HPDLKTDGFG IDTCRSMVAV MDSDTTGKLG FEEFKYLWNN IKRWQAIYKQ FDTDRSGTIC SSELPGAFEA AGFHLNEHLY NMIIRRYSDE SGNMDFDNFI SCLVRLDAMF RAFKSLDKDG TGQIQVNIQE WLQLTMYS |
| **Predicted molecular weight** | 24 kDa including tags |
| **Amino acids** | 84 to 268 |
| **Tags** | His tag N-Terminus |
| **Additional sequence information** | NP_001740. |

### Specifications

Our **Abpromise guarantee** covers the use of **ab180298** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| | |
|---|---|
| **Applications** | SDS-PAGE |
| **Mass spectrometry** | MALDI-TOF |
| **Form** | Liquid |

## Preparation and Storage

**Stability and Storage**

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 8.00
Constituents: 0.32% Tris HCl, 0.88% Sodium chloride, 20% Glycerol (glycerin, glycerine), 0.02% DTT

## General Info

**Function**

Regulatory subunit of the calcium-regulated non-lysosomal thiol-protease which catalyzes limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction.

**Sequence similarities**

Contains 5 EF-hand domains.

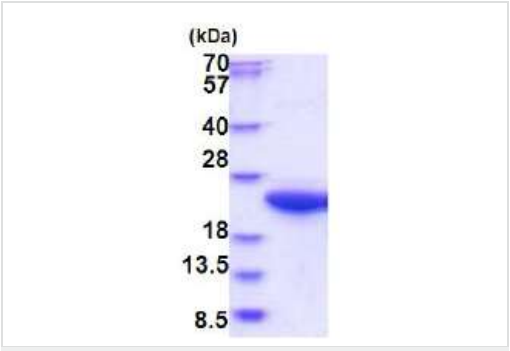
**Domain**

The contact of the 5th EF-hand domain from each monomer allows the formation of the homodimer and also appears to mediate the contact between the large catalytic subunit and small regulatory subunit for the formation of the heterodimer.
EF-hand domains are paired. EF-hand 1 is paired with EF-hand 2 and EF-hand 3 is paired with EF-hand 4. The fifth EF-hand domain, left unpaired, does not bind the calcium but is responsible of the dimerization by EF-embrace. The first four EF-hand domains bind calcium, however it is not sure if the binding of EF-hand 4 to calcium is physiologically relevant.

**Cellular localization**

Cytoplasm. Cell membrane. Translocates to the plasma membrane upon calcium binding.

## Images




SDS-PAGE - Recombinant Human Calpain small subunit 1 protein (ab180298)

15% SDS-PAGE analysis of ab180298 (3µg).



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